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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/528,000	03/17/2000	Shiri Kadambi	P108339-09065	3384

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EXAMINER
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HOANG, THAI D

ART UNIT	PAPER NUMBER
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2668

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/528,000	KADAMBI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thai D. Hoang	2668	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 is/are allowed.
- 6) ☒ Claim(s) 1-2 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "high performance interconnect links" in claim 1 is a relative term which renders the claim indefinite. The term "high performance interconnect links" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claims 2 and 5 are rejected because they depend on rejected claim 1.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIP3A (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-2 and 5 are rejected under 35 U.S.C. 102(e) as being unpatentable over Schwartz et al, US Patent No. 6,434,115 B1, hereafter referred to as Schwartz.

Regarding claim 1, as best understood, Schwartz discloses a system and method for switching packets in a network. Schwartz discloses that the system comprising:

a switching node (fig. 1; element 11) that receives a plurality of incoming data packets (25xx) at a plurality of input ports (20s) for transmission the data packets to a plurality of output ports (21s), wherein the switching node 11 is one of a plurality of switching nodes 11s configured in a stack; see fig. 1 and 2 (receiving an incoming packet on a first port of a network switch for transmission to a destination port);

an input queues 41(n) couples the meta-data packets enqueued therein in order to the packet pass/drop circuit 42(n). The packet pass/drop circuit 42(n) makes a pass/drop determination based on status information for the output port module 21(n) associated with the processor module 40(n), which is stored in the output port module(n) status information store 43(n). The output port status information stored in the store 43(n) reflects the output port module's operational status, in particular its capacity at any point in time to receive additional packets from the input port modules 20(n) for transmission, and may be a function of the amount of buffering that the output port module 21(n) has available to packets retrieved from the input port modules 20(n)

for transmission or drop packets if the capacity of the buffer is not available; col. 11, line 47-col. 13, line 2 (determining if said destination port is a monitored port; determining a queue status of said destination port, if said destination port is determined to be a monitored port; prescheduling transmission of said incoming packet to said destination port if said destination port is determined to be a monitored port; wherein the step of prescheduling transmission comprises dropping said incoming data packet only when the queue status of the destination port indicates that a queue for the destination port is full).

Furthermore, Schwartz discloses the header portion of a data packet includes information that assists in routing the packet through the network. For each packet received, the input port module 20(n) buffers the packet and identifies from the destination address contained in the packet's header the appropriate route therefor, in the process identifying the particular output port module 21(n) to which the packet is to be sent and one of one or more output ports 26(n)(1) through 26(n)(M) on the output port module 21(n) through which the packet is to be transmitted to facilitate forwarding of the packet to the destination device 12( $m_D$ ) or to the next switching node 11( $n'$ ) along the path to facilitate routing of the packet to the destination device 12( $m_D$ ). Col. 4, lines 30-53, col. 5, lines 21-31. Also, Schwartz discloses the system handles a high traffic capacity, col. 23, lines 60-61 (wherein the network switches in the stack are connected through high performance interconnect links and the method further comprises stripping a module header from packets received via the high performance interconnect links).

Regarding claim 2, Schwartz discloses that the status of the output ports are monitored stored in the store 43(n), and the pass/drop circuit 42 (n) makes pass/drop determination based on this information; col. 12, lines 16- col. 13, line 2 (classifying said queue status of said destination port; and taking action in accordance with said classification of said queue status).

Regarding claim 5, Schwartz discloses the status information in the provide store 43(n) is provided by the associated output port module 21(n), as represented by the OP\_PORT (n)\_STATUS output port (n) status signal, which forms one of the OUT(n)\_CTRL/STATUS output (n) control/status signals; col. 12, lines 23-30 (determining if said destination port is a monitored port further comprises the step of receiving a status message on a communication channel)

***Allowable Subject Matter***

Claim 3 is allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Schwartz et al, US Patent No. 6,434,115 B1, discloses a system and method for switching packets in a network. Zheng et al, US Patent No. 6,611,522 B1 Quality of service facility in a device for performing IP forwarding and ATM switching. Both Schwartz et al and Zheng et al do not teach or fairly suggest the following features, which are recited in independent claim 3 of the present application:

A method for managing congestion in a network switch, said method comprising the steps of:

classifying a queue status of a destination port; and  
taking action in accordance with said classification of said queue status  
wherein said classifying step further comprises the steps of:  
classifying said queue status of said destination port as a first type, second type  
and third type based on predetermined threshold values, and  
wherein said step of taking action in accordance with the classification of said  
queue status further comprises the steps of:  
*writing an entry in a first queue if said queue status of said destination port is  
classified as said first type;*  
*selecting a second queue and writing said entry into said second queue if said  
queue status of said destination port is classified as said second type; and*  
*dropping said packet if said queue status of said destination port is classified as  
said third type.*

### ***Response to Arguments***

Applicant's arguments filed 11/12/2004 have been fully considered but they are not persuasive.

Regarding claim 1, page 7 of the remarks, Applicants argue that the reference "fails to teach or suggest the stacking of network devices as described and claimed in the instant invention and the handling of packets received through high performance interconnect links used in the stacking of the network devices." Examiner respectfully disagrees. According to the application, pages 99-101, and figures 26-27, the statement "network switches configured in a stack" recited in the claim 1 is interconnection

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between a plurality of switches. In the telecommunication art, the stacked switching system allows each switch connects with other switches in a determined topology (ring, star, daisy-chaining, mesh, loop...). Therefore, the interconnection of a plurality of the switches in figures 1-2 of the reference is a stacked switching configuration. In addition, all network elements (routers, switches, hubs...) are stackable for expanding or increasing the capacity of the network without replacement current devices.

Regarding the new limitation added to the claim 1, "the network switches in the stack are connected through high performance interconnect links and the method further comprises stripping a module header from packets received via the high performance interconnect links." Examiner believes this limitation has been mentioned set forth above with respect to claim 1.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D. Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Chieh can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang

A handwritten signature in black ink, appearing to read "Chieh M. Fan", followed by a large, stylized number "7".

**CHIEH M. FAN  
PRIMARY EXAMINER**